The Opioid Epidemic: What Mental Health Professionals Need to Know

Person-Centered Addiction Medicine Treatment

Ian McLoone, LPC, LADC
August 12, 2016
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Contact Information

I am happy to discuss any of this information further

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The Opioid Epidemic: History, Course, Statistics
Definition of Opioids

“Opioids are a class of drugs that include the illicit drug heroin as well as the licit prescription pain relievers oxycodone, hydrocodone, codeine, morphine, fentanyl and others.”

“Opioids are chemically related and interact with opioid receptors on nerve cells in the brain and nervous system to produce pleasurable effects and relieve pain.”

- ASAM, 2016 Opioids Facts and Figures
<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
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<tbody>
<tr>
<td>3000 BC</td>
<td>Opium Cultivation: There is agreement among scholars that at least as far back as 3000 BC opium was cultivated by the Sumerians - inhabitants of modern day Iraq.</td>
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<tr>
<td>300 BC</td>
<td>Homer’s Odyssey: Helen, Zeus’ daughter, gives an opiate-based preparation to her guests to “help them forget their grief over Odysseus’ absence.”</td>
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<td>700-1300 AD</td>
<td>Opium trade expands: Arab traders first bring opium to India and China. Then it makes its way from Asia Minor to Europe. By 1600, reports of misuse and dependence found in manuscripts.</td>
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<td>1806</td>
<td>Morphine isolated: Serturmer isolates the active ingredient in opium and names it after Morpheus, the god of dreams.</td>
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<td>1850s</td>
<td>Hypodermic needle invented: Morphine becomes widely used in surgical settings and pain treatment in general.</td>
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## Major Events in the History of Opioids


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<th>Year</th>
<th>Event</th>
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<td>1898</td>
<td>Heroin synthesized</td>
<td>Discovered in the search for a safer, more effective, less addictive alternative to morphine</td>
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<tr>
<td>1914</td>
<td>Passage of Harrison Act</td>
<td>Opiates and cocaine were taxed heavily and then ultimately made illegal, leading to the creation and surge of black market availability</td>
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<tr>
<td>1939, 1946</td>
<td>First synthetic opioids</td>
<td>Demerol and Methadone, respectively, were developed as the first two structurally unrelated compounds that produced opiate-like effects</td>
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<tr>
<td>1942</td>
<td>First antagonist developed</td>
<td>Weijlard and Erikson develop nalorphine, finding it can reverse respiratory depression and precipitate withdrawal syndrome</td>
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<tr>
<td>1960s-90s</td>
<td>Other developments</td>
<td>By the 1960s, actions of agonists, partial agonists and antagonists were being investigated, as was MMT. In the 1970s, Vicodin and Percocet were introduced, though most Drs were conservative in pain treatment</td>
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</table>
Then, in 1996, OxyContin is Born

- Purdue Pharma aggressively marketed the painkiller as safe, non-addictive, and “abuse deterrent” due to its time-release protective coating.
- By 2000, it accounted for $1.1 billion in sales, a 2000% increase from its first year. In 2010, that number reached $3.1 billion.
- Its introduction coincided with a major push by industry groups to treat chronic non-cancer pain more aggressively than ever, identifying pain as the “5th vital sign.”
- Ultimately, the rate of opioid prescribing in general increased substantially, with over 1/4 of opioid prescriptions coming from primary care providers.
Prescriptions for Opioids Surge...

- Between 1991-2011, opioid prescriptions nearly tripled, climbing from 76 million to 219 million, respectively.
- The US accounts for nearly 100% of worldwide hydrocodone Rxs and 81% of worldwide oxycodone Rxs.
...And Overdose Deaths Surge Too

- Nationwide, deaths attributed to Rx opioids nearly quadrupled between 2001-2014
- In Minnesota, overdose death rates climbed steadily between 2000-2013, only recently showing modest improvements
Drug overdose is the leading cause of accidental death in the US, with 47,055 lethal drug overdoses in 2014 (double the rate from decade prior). Opioid addiction is driving this epidemic, with 18,893 overdose deaths related to prescription pain relievers, and 10,574 overdose deaths related to heroin in 2014.

- Centers for Disease Control and Prevention
More recently, as awareness of opioid risk has grown and greater controls over rx-ing and dispensing do too, more and more people are switching to heroin.
As heroin use rates have started climbing, so have overdose death rates. The number of past-year heroin users in the United States nearly doubled between 2005 and 2012, from 380,000 to 670,000.
What are we doing about it?

- Policy changes
- Public health initiatives
- Treatment interventions
Policy developments: federal and state initiatives
Policy Initiatives

- CARA - Comprehensive Addiction and Recovery Act
- Steve’s Law - Narcan and Good Samaritan Legislation
- CDC Opioid Guidelines
Comprehensive Addiction and Recovery Act

- Recently signed by President Obama.
- Expands access to ARMs in the criminal justice system.
- Provides investment in diversion programs and drug courts.
- May expand the use of PDMPs.
- Expands buprenorphine prescribing authority to nurse practitioners and physician assistants.
- Failed to ensure much-needed funding, so future impact of the law is hard to predict.
Steve’s Law: 911 Good Samaritan and Naloxone Bill

- Passed in 2014 after lobbying and pressure by SRHF and others.
- Legalized the prescribing and use of Narcan/Naloxone - the opioid overdose antidote - to anyone who needs it.
- Also guarantees users can call 911 to report an overdose without fear of prosecution for possession of paraphernalia, personal drugs.
- First responders are getting trained and equipped with OD antidote - and it’s working!
If opioids are used for acute pain, 3 days or fewer will often suffice; more than 7 days will rarely be needed.

Consider the full range of therapeutic options for chronic pain, including combinations of non-opioid and nonpharmacologic therapy.

When starting opioids for chronic pain, prescribe immediate-release formulations instead of extended-release/long-acting opioids.

Use the lowest effective dose. Reassess benefits and risks if the dose reaches 50 morphine milligram equivalents (MME) per day; avoid or carefully justify a dosage of 90 MME/day.

When starting opioids, and periodically, order urine testing and review state prescription drug monitoring program (PDMP) pharmacy tracking data. Avoid prescribing opioids and benzodiazepines concurrently.
Treatment Considerations: current trends in SUD care
Current Trends

- Integrated Mental Health and SUD Care
- Integration of Neuroscience
- Recovery-oriented Systems of Care (ROSC)
- DHS - ADAD Initiatives
- Obamacare!
Integrated MH and SUD Care

- All symptoms are treated in the same place, at the same time, preferably by the same clinicians.
  - Consistently outperforms “parallel” or “consecutive” approaches.

- Encourages advanced training, requires MH Professionals.
  - Clinicians are held to a high standard of competency.

- Usually requires team-based approach.
  - Lots of coordination, consultation, and supervision.

- Chronic-care model, longitudinal treatment.
  - Setbacks are expected, multiple tools are used, focus on engagement as priority.
The field of neuroscience has yielded incredible new findings which are working their way into clinical practice:

- **Brain anatomy** - 100 billion neurons & genes
- **Pharmacological effects** of drugs, alcohol and medications
- **The importance of the different brain regions** in the development and maintenance of addiction

### “Stages of the Addiction Cycle”

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<th>Shifting Drivers Resulting from Neuroadaptations</th>
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<td>Binge and intoxication</td>
<td>Feeling euphoric → Feeling good → Escaping dysphoria</td>
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<td>Withdrawal and negative affect</td>
<td>Feeling reduced energy → Feeling reduced excitement → Feeling depressed, anxious, restless</td>
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<td>Preoccupation and anticipation</td>
<td>Looking forward → Desiring drug → Obsessing and planning to get drug</td>
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### Integration of Neuroscience

The diagram illustrates the neuroadaptations and their associated behavioral changes.

- **Neuroadaptations**:
  - Neurocircuits
  - Synaptic systems
  - Molecules
  - Epigenetics

- **Behavioral Changes**:
  - **Voluntary action**:
    - Abstinence
    - Constrained drug-taking
  - **Impulsive action**:
    - Relapse
    - Compulsive consumption

**At Birth**

**6 Years Old**

**14 Years Old**
Integration of Neuroscience

All symptoms are treated in the same place, at the same time, preferably by the same clinicians. Consistently outperforms “parallel” or “consecutive” approaches. Encourages advanced training, requires MH Professionals. Usually requires team-based approach. Lots of coordination, consultation, and supervision. Chronic care model, longitudinal treatment.

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<td>Abstinence</td>
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<tr>
<td>Constrained drug taking</td>
</tr>
<tr>
<td>Sometimes taking when not intending</td>
</tr>
<tr>
<td>Sometimes having trouble stopping</td>
</tr>
<tr>
<td>Sometimes taking more than intended</td>
</tr>
<tr>
<td><strong>Impulsive action</strong></td>
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Recovery-Oriented Systems of Care:

- Providing a continuum of services, rather than crisis-oriented care
- Accessible services that engage and retain people seeking recovery;
- Care that is age- and gender-appropriate and culturally competent
- Where possible, care in the person’s community and home using natural supports
What is recovery?

2009: “Recovery from alcohol and drug problems is a process of change through which an individual achieves abstinence and improved health, wellness, and quality of life.”

2011: “Recovery from Mental Disorders and Substance Use Disorders: A process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential.”

— SAMHSA
Identified the need to change the entire system of care from acute, episodic to chronic, longitudinal.

Recommended changing rule that requires discharge and service termination.

Endorsed ROSC model of an enhanced continuum of care, peer support and flexible services.

Recommended increased diversity and emphasis on growing multicultural workforce.
The Affordable Care Act

Substance Use Disorder Treatment Hugely Impacted:
★ Over 30 million newly-insured Americans.
★ SUDs added to list of “Essential Health Benefits” - previously, 80% of Tx publicly funded.
★ Preventive care covered 100%
★ Guaranteed coverage for pre-existing conditions.
★ Increase in the number of people who meet criteria for treatment.
Anti-Relapse Medications
Why Use ARMs?

- Improve outcomes
- Improve retention
- Reduce risk of recurrences
  - Reduce ODs
Anti-relapse Medications

- Suboxone/Buprenorphine
- Methadone
- Naltrexone
- Vivitrol
But, first: Myth vs Fact
Myth:
Use of ARMs is just replacing one addiction with another

Fact:
- Prescribed/monitored by a medical provider
- FDA-approved
- Regulated potency
- Curbs cravings and withdrawal symptoms
Addiction vs. Dependence

- Compulsive use
- Continues use despite consequences
- Using a substance to get "high"

- Physiologically reliant on a substance
- Dependence on medications is common (e.g., insulin, beta blockers, antidepressants, antipsychotic medications)
- Utilize the medication to feel well

Slides adapted from Adrienne C. Lindsey, MA, DBH
Myth: Medications don’t work

Fact: In just about every measurable way, they do!

Slides adapted from Adrienne C. Lindsey, MA, DBH
Fact:

Drug overdose is a leading cause of death for individuals being released from jail or prison.

Myth:
If someone is already abstinent, they don’t need medications.
Fact:

“No A.A. member should ‘play doctor,’ all medical advice and treatment should come from a qualified physician.” --A.A.

General Service Office (Member Medications & Other Drugs brochure)
“…just as it is wrong to enable or support any alcoholic to become readdicted to any drug, it’s equally wrong to deprive any alcoholic of medication, which can alleviate or control other disabling physical and/or emotional problems.”

- AA General Service
“NA as a whole has no opinion on outside issues, including prescribed medications. Use of psychiatric medication and other medically indicated drugs prescribed by a physician and taken under medical supervision is not seen as compromising a person’s recovery in NA.”

- NA “How it works”
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<th>Medications for Opioid use Disorder</th>
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<tr>
<td>Methadone</td>
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<tr>
<td>Naltrexone/Vivitrol</td>
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<tr>
<td>Buprenorphine</td>
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How do Opioids Work?

- **Full Agonist** (e.g., methadone)
- **Partial Agonist** (e.g., buprenorphine)
- **Antagonist** (e.g., naloxone)

Opioid effect vs. dose of opioid

Slides adapted from Adrienne C. Lindsey, MA, DBH
Methadone


Full agonist, once-daily dosing, also used to treat moderate-severe pain.

Pros: Affordable, highly effective, safe in pregnancy, convenient once-daily dosing.
Research consistently shows methadone is cost-effective, increases employment and reduces criminal activity.

Dosing:
Average effective dose 80-120 mg/day.
Dose begins @ 30mg, then titrates up 3mg or more/day.

Cons: Must be dispensed in OTP, strict regulations, burdensome attendance requirements.
Common side effects: constipation, excessive sweating, risk of overdose esp w/alcohol.
Naltrexone, Vivitrol

Opioid antagonist: binds to opioid receptors, maintains state, blocks other opioids
Prevents user from getting high in event of recurrence

Pros: Blocks the high of opioids, non-addictive, no risk of misuse, monthly injection very convenient
Probably most effective when agonist medications are unavailable

Dosing
Tablets: 50mg once/day
Vivitrol: 380mg monthly intramuscular injection
Dose begins @ 30mg, then titrates up 3mg or more/day

Cons: No effect on craving or withdrawal, very hard to maintain adherence, high risk of OD, not much evidence
Anecdotal reports that by day 21 or so after injection, the full effect wears off
Buprenorphine

Opioid partial-agonist: binds to opioid receptors, partially activates them. Provides craving relief AND blocks additional opioids.

Pros: Blocks the high of opioids, provides full craving relief, presence of naltrexone prevents IV use. Office-based prescribing helps reduce stigma, does not require daily attendance.

Dosing: 16mg or higher 1x/day. Available in film, tablet, buccal film, and implant. Dose begins @ 8mg, then titrates up to effective dose.

Cons: Can be expensive, few doctors accept insurance, fewer sober housing options. Primary side effects: constipation, excessive sweating (though not as bad as methadone).
What does the research say?

- There has never been a single RCT that showed an abstinence-based treatment could outperform agonist medications.
- At least 80% of patients treated without meds return to opioid use (in some studies, as many as 93-100%). Whereas treatment retention rates are 60-80% with medications while only 15% continue to use opioids.
- Dosing must be adequate.
- Open-ended treatment is key, forced tapers DO NOT WORK
- Patient choice is key. As long as they are well-informed, let them decide!
Who is Appropriate for Maintenance Treatment?

- Adults with long-term opioid addiction (arbitrary length of time: >12 months)
- Willingness to use medications
- Especially if previously attempted treatment/recovery
- Is currently abstinent but struggling with cravings, low mood, agitation, etc., all of which are symptoms of opioid deficiency syndrome
With opioid addiction and overdose rates reaching epidemic proportions, MH Professionals must be armed with the knowledge and skills to offer the best available treatment to our clients.

Currently, there are several FDA-approved anti-relapse medications available, but their use is still controversial in many circles.

Multiple local and national initiatives are aimed at affecting change.

Be aware of promising future directions and potential changes.
Questions and Discussion
THANK YOU!
References

- Kaplan, L., The Role of Recovery Support Services in Recovery-Oriented Systems of Care. DHHS Publication No. (SMA) 08-4315. Rockville, MD: